

STANDARD FORM NO. 64

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TO : The Files -- RD-107, Task Order 10

DATE: 28 August 1959

FROM :

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SUBJECT: Telecon Report - RT-21 Transmitter

1. On 27 August 1959 the writer called to discuss problems relating to the RT-21 Transmitter. The following points were discussed.

2. Size - In the fifth bi-monthly report, stated that the size of the RT-21 would be no larger than 12 x 6 x 3 inches. When asked, indicated that the size of the RT-21 now looks to be around 8 x 6 x 3 inches, but could not be firmed up until all sections of the transmitter have been completed.

3. Final Amplifier - According to the USASRD experimental transistors were equal to or better than the transistors available on the market. The final amplifier is in push-pull and delivers 1.8 watts at 3 megacycles, and 400 milliwatts at 30 megacycles when working into a 500 ohm load. One difficulty encountered with these experimental transistors, in push-pull, is that one transistor cuts off late, after the opposite transistor is conducting. This then allows energy to be dissipated in that transistor instead of in the antenna network.

4. The mechanical portions of the antenna matching network are presently in the work shop being physically laid out with its associated gear linkage. Further, the electrical features of the antenna network have been firmed up.

5. The oscillator, pre-amplifier and the driver stages have been completed in breadboard form. The band-pass of the pre-amplifier is 3 to 15 megacycles, and by switching inductances 15 to 30 megacycles. Along with the switching, the number of transistors in the switching circuit has been reduced from 15 to 2 each.

cc: R+D Subject File
R+D Lab
Monthly (2)
EP Chrono

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